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Updated search

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Dec 17	The CA Lexicon available in the CAPLUS and CA files
NEWS 3	Feb 06	Engineering Information Encompass files have new names
NEWS 4	Feb 16	TOXLINE no longer being updated
NEWS 5	Apr 23	Search Derwent WPINDEX by chemical structure
NEWS 6	Apr 23	PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS 7	May 07	DGENE Reload
NEWS 8	Jun 20	Published patent applications (A1) are now in USPATFULL
NEWS 9	JUL 13	New SDI alert frequency now available in Derwent's DWPI and DPCI
NEWS 10	Aug 23	In-process records and more frequent updates now in MEDLINE
NEWS 11	Aug 23	PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
NEWS 12	Aug 23	Adis Newsletters (ADISNEWS) now available on STN
NEWS 13	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS 14	Oct 09	Korean abstracts now included in Derwent World Patents Index
NEWS 15	Oct 09	Number of Derwent World Patents Index updates increased
NEWS 16	Oct 15	Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS 17	Oct 22	Over 1 million reactions added to CASREACT
NEWS 18	Oct 22	DGENE GETSIM has been improved
NEWS 19	Oct 29	AAASD no longer available

NEWS EXPRESS	August 15 CURRENT WINDOWS VERSION IS V6.0c, CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP), AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

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Connecting via Winsock to STN

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 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
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=> s fibronectin
L1      100222 FIBRONECTIN

=> s fibrin (w) binding (w) domain
L2         198 FIBRIN (W) BINDING (W) DOMAIN

=> s L1 and L2
L3         135 L1 AND L2

=> s L1 and (marker or image or isotope or label)
L4        6568 L1 AND (MARKER OR IMAGE OR ISOTOPE OR LABEL)

=> s L4 and fibrin
L5         149 L4 AND FIBRIN

=> s L5 and ((thrombus or atherosclerotic (w) plaque))
L6          15 L5 AND ((THROMBUS OR ATHEROSCLEROTIC (W) PLAQUE))

=> s L5 and ((fibrin (w) binding (w) domain))
L7          17 L5 AND ((FIBRIN (W) BINDING (W) DOMAIN))

=> dup rem L6
PROCESSING COMPLETED FOR L6
L8           11 DUP REM L6 (4 DUPLICATES REMOVED)

=> dup rem L7
PROCESSING COMPLETED FOR L7
L9            9 DUP REM L7 (8 DUPLICATES REMOVED)

=> dis L8 1-11 ibib kwic

L8   ANSWER 1 OF 11  EMBASE  COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 1
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FILE 'HOME' ENTERED AT 16:23:05 ON 02 NOV 2001

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L9            9 DUP REM L7 (8 DUPLICATES REMOVED)

=> dis L8 1-11 ibib kwic

L8   ANSWER 1 OF 11  EMBASE  COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 1
```

ACCESSION NUMBER: 2001142593 EMBASE
TITLE: Radiolabeled peptides in the detection of deep venous thrombosis.
AUTHOR: Taillefer R.
CORPORATE SOURCE: Dr. R. Taillefer, Department of Nuclear Medicine, Hotel-Dieu de Montreal, 3840 rue St-Urbain, Montreal, H2W 1T8, Canada
SOURCE: Seminars in Nuclear Medicine, (2001) 31/2 (102-123). Refs: 55
ISSN: 0001-2998 CODEN: SMNMAB
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 023 Nuclear Medicine
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB . . . and ultrasonography are imaging procedures that detect changes in
venous anatomy that are caused by the presence of an intraluminal **thrombus** that is sufficiently formed either to reduce vascular filling with contrast medium or to resist compression. However, these imaging procedures. . . by various disease-related and technical factors. An alternative approach to the diagnosis of acute DVT is to detect a molecular **marker** of acute DVT that is not present in old, organized DVT. Recent advances in biotechnology permit the use of highly specific synthetic peptide or small molecular **markers**, which are involved in the acute stages of DVT formation and can be labeled
efficiently with (99m)Tc. (99m)Tc-apcitide, a glycoprotein. . . acute DVT. Two other agents are currently under clinical investigation: (99m)Tc-DMP 444, which is another GP IIb/IIIa receptor antagonist, and (99m)Tc-**Fibrin**-Binding Domain (FBD), a radio-labeled **fibrin**-binding domain of **fibronectin**. Different clinical studies have shown a high diagnostic accuracy with these synthetic (99m)Tc-labeled peptides in the detection of acute DVT.. . .

CT Medical Descriptors:
*deep vein thrombosis: DI, diagnosis
*protein analysis
isotope labeling
peptide analysis
diagnostic value
reliability
color ultrasound flowmetry
biotechnology
drug mechanism
human
human tissue
human cell
review
***fibronectin: EC, endogenous compound**
*fibrinogen receptor antagonist: PD, pharmacology
*technetium 99m

RN (**fibronectin**) 86088-83-7; (technetium 99m) 14133-76-7

L8 ANSWER 2 OF 11 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 2001:225518 BIOSIS
DOCUMENT NUMBER: PREV200100225518
TITLE: **Fibrin** binding domain polypeptides and uses and

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peptide analysis
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reliability
color ultrasound flowmetry
biotechnology
drug mechanism
human
human tissue
human cell
review
***fibronectin: EC, endogenous compound**
*fibrinogen receptor antagonist: PD, pharmacology
*technetium 99m
RN (**fibronectin**) 86088-83-7; (technetium 99m) 14133-76-7

L8 ANSWER 2 OF 11 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 2001:225518 BIOSIS
DOCUMENT NUMBER: PREV200100225518
TITLE: **Fibrin** binding domain polypeptides and uses and

methods of producing same.
AUTHOR(S): Vogel, Tikv (1); Levanon, Avigdor; Werber, Moshe; Guy, Rachel; Panet, Amos
CORPORATE SOURCE: (1) Rehovot Israel
ASSIGNEE: Bio-Technology General Corp.
PATENT INFORMATION: US 6121426 September 19, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Sep. 19, 2000) Vol. 1238, No. 3, pp. No Pagination. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
TI **Fibrin** binding domain polypeptides and uses and methods of producing same.
AB This invention provides an imaging agent which comprises a polypeptide labeled with an imageable **marker**, such polypeptide having an amino acid sequence substantially present in the **fibrin** binding domain of naturally-occurring human **fibronectin** and being capable of binding to **fibrin**. The invention further provides a method wherein the imaging agent is used for imaging a **fibrin** -containing substance, i.e., a **thrombus** or **atherosclerotic plaque**. Further provided are plasmids for expression of polypeptides having an amino acid sequence substantially present in the **fibrin** binding domain of naturally-occurring human **fibronectin** and being capable of binding to **fibrin** , hosts containing these plasmids, methods of producing the polypeptides, methods of treatment using the polypeptides, and methods of recovering, refolding. . . purified polypeptides substantially free of other substances of human origin which have an amino acid sequence substantially present in the **fibrin** binding domain of naturally-occurring human **fibronectin** and which are capable of binding to **fibrin**.
IT Major Concepts
Biochemistry and Molecular Biophysics; Radiology (Medical Sciences)
IT Chemicals & Biochemicals
fibrin binding domain polypeptides: imaging agents
IT Miscellaneous Descriptors
fibrin-containing domain

L8 ANSWER 3 OF 11 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 2000:277499 BIOSIS
DOCUMENT NUMBER: PREV200000277499
TITLE: **Fibrin** binding domain polypeptides and uses and methods of producing same.
AUTHOR(S): Vogel, Tikv (1); Levanon, Avigdor; Werber, Moshe; Guy, Rachel; Panet, Amos
CORPORATE SOURCE: (1) Rehovot Israel
ASSIGNEE: Bio-Technology General Corp., Iselin, NJ, USA
PATENT INFORMATION: US 5965383 October 12, 1999
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 12, 1999) Vol. 1227, No. 2, pp. No pagination. e-file..
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IT Major Concepts
Biochemistry and Molecular Biophysics; Cardiovascular Medicine (Human Medicine, Medical Sciences); Methods and Techniques
IT Chemicals & Biochemicals
fibrin; polypeptide: **fibrin** binding domain, imaging agent
IT Methods & Equipment
imaging method: imaging method
IT Miscellaneous Descriptors
atherosclerotic plaque; **thrombus**

L8 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:9677 CAPLUS
DOCUMENT NUMBER: 130:78109
TITLE: Application of 13C-13C, 13C-15N, and 13C-13C-15N isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging
INVENTOR(S): Montelione, Gaetano T.; Stein, Stanley
PATENT ASSIGNEE(S): University of Medicine & Dentistry of New Jersey, USA;
Rutgers University
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9857578	A1	19981223	WO 1998-US12568	19980617

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

producing same.
AB This invention provides an imaging agent which comprises a polypeptide labeled with an imageable **marker**, such polypeptide having an amino acid sequence substantially present in the **fibrin** binding domain of naturally-occurring human **fibronectin** and being capable of binding to **fibrin**. The invention further provides a method wherein the imaging agent is used for imaging a **fibrin**-containing substance, i.e., a **thrombus**-or **atherosclerotic plaque**. Further provided are plasmids for expression of polypeptides having an amino acid sequence substantially present in the **fibrin** binding domain of naturally-occurring human **fibronectin** and being capable of binding to **fibrin**, hosts containing these plasmids, methods of producing the polypeptides, methods of treatment using the polypeptides, and methods of recovering, refolding. . . purified polypeptides substantially free of other substances of human origin which have an amino acid sequence substantially present in the **fibrin** binding domain of naturally-occurring human **fibronectin** and which are capable of binding to **fibrin**.
IT Major Concepts
Biochemistry and Molecular Biophysics; Cardiovascular Medicine (Human Medicine, Medical Sciences); Methods and Techniques
IT Chemicals & Biochemicals
fibrin; polypeptide: **fibrin** binding domain, imaging agent
IT Methods & Equipment
imaging method: imaging method
IT Miscellaneous Descriptors
atherosclerotic plaque; **thrombus**

L8 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:9677 CAPLUS
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TITLE: Application of 13C-13C, 13C-15N, and 13C-13C-15N isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging
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PATENT ASSIGNEE(S): University of Medicine & Dentistry of New Jersey, USA;
Rutgers University
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9857578	A1	19981223	WO 1998-US12568	19980617

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9879727 A1 19990104 AU 1998-79727 19980617

PRIORITY APPLN. INFO.: US 1997-878022 A 19970618
US 1997-63252 P 19971024
WO 1998-US12568 W 19980617

REFERENCE COUNT: 3

REFERENCE(S): (1) Bogdanov; US 5593658 A 1997
(2) Brixner; US 5094848 A 1992 CAPLUS
(3) Sinn; US 5308604 A 1994 CAPLUS

TI Application of 13C-13C, 13C-15N, and 13C-13C-15N isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging

IT Platelet (blood)
(activated-platelet binding protein; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically
enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Nucleic acids
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(binding proteins for; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT MRI contrast agents
Spin-spin relaxation
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Antigens
Receptors
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Antibody conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Monoclonal antibody conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Peptide conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Protein conjugates

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9879727 A1 19990104 AU 1998-79727 19980617

PRIORITY APPLN. INFO.: US 1997-878022 A 19970618
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enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Nucleic acids
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(binding proteins for; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT MRI contrast agents
Spin-spin relaxation
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Antigens
Receptors
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Antibody conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Monoclonal antibody conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Peptide conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Protein conjugates

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Proteins (general), biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Organic compounds, biological studies
Single chain antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Fibronectins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**fibrin**-binding domain fragment; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically
enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Infection
(infectious agent antigen or receptor targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for MRI)

IT Proteins (specific proteins and subclasses)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ligand-binding, nucleic acid- and protein-, conjugates; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Fibrins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(monoclonal antibodies to; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT .beta.-Amyloid
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(plaque, targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Thrombus**
(targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Antigens
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(tumor-specific antigens; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Alzheimer's disease

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Proteins (general), biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Organic compounds, biological studies
Single chain antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Fibronectins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**fibrin**-binding domain fragment; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically
enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Infection
(infectious agent antigen or receptor targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for MRI)

IT Proteins (specific proteins and subclasses)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ligand-binding, nucleic acid- and protein-, conjugates; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Fibrins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(monoclonal antibodies to; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT .beta.-Amyloid
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(plaque, targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Thrombus**
(targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Antigens
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(tumor-specific antigens; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Alzheimer's disease

(.beta.-amyloid plaque targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT 108-77-0D, Cyanuric chloride, reaction products with tissue-directed targeting group and isotopically enriched protein 573-58-0D, Congo red, conjugates 3934-20-1D, 2,4-Dichloropyrimidine, reaction products with tissue-directed targeting group and isotopically enriched protein 14390-96-6, Nitrogen-15, biological studies 14762-74-4, Carbon-13, biological studies 20342-94-3D, reaction products with tissue-directed targeting group and isotopically enriched protein 58626-38-3D, reaction products with tissue-directed targeting group and isotopically enriched protein 218432-70-3D, conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT 139639-23-9, Tissue plasminogen activator
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (inactivated, conjugates; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

L8 ANSWER 5 OF 11 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 2
ACCESSION NUMBER: 1997:244476 BIOSIS
DOCUMENT NUMBER: PREV199799543679
TITLE: Recombinant polypeptides derived from the **fibrin** binding domain of **fibronectin** are potential agents for the imaging of blood clots.
AUTHOR(S): Ezov, N.; Nimrod, A.; Parizada, B.; Erber, M. M.; Goldlust, A.; Greenstein, L. A.; Vogel, T.; Drizlich, N.; Levanon, A.; Reich, S.; Gorecki, M.; Panet, A. (1)
CORPORATE SOURCE: (1) Bio-Technol. Gen., Kiryat Weizmann, Rehovot 76326 Israel
SOURCE: Thrombosis and Haemostasis, (1997) Vol. 77, No. 4, pp. 796-803.
ISSN: 0340-6245.
DOCUMENT TYPE: Article
LANGUAGE: English

TI Recombinant polypeptides derived from the **fibrin** binding domain of **fibronectin** are potential agents for the imaging of blood clots.

AB **Thrombus** formation in the circulation is accompanied by covalent linkage of **fibronectin** (FN) through transglutamination of glutamine no. 3 in the **fibrin** binding amino terminal domain (FBD) of FN. We have exploited this phenomenon for **thrombus** detection by the employment of radioactively-labelled recombinant polypeptide molecules derived from the 5-finger FBD of human FN. Three recombinant FBD. . . FBD ("5 fingers"), were prepared and compared to native FN-derived 31 kDa-FBD with respect to their ability to attach to **fibrin** clots in vitro and in vivo. The accessibility of Gln-3 in these molecules was demonstrated by the incorporation of stoichiometric amounts of 14C-putrescine in the presence of plasma transglutaminase. Competitive binding experiments to **fibrin** have indicated that, although the binding affinities of the FBD molecules are lower than that

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of FN, substantial covalent linkage. . . The potential of the 12 kDa and 31 kDa FBDs as imaging agents was examined in a stainless steel coil-induced **thrombus** model in rats and in a jugular vein **thrombus** model in rabbits, using either (125I) or (111In)labelled materials. At 24 h, clot-to-blood ratios ranged between 10 and 22 for. . .

IT Miscellaneous Descriptors
BLOOD AND LYMPHATIC DISEASE; BLOOD AND LYMPHATICS; **FIBRIN** RECOMBINANT POLYPEPTIDES; FIBRINOGEN; **FIBRONECTIN**; INDIUM-111 **LABEL**; IODINE-125 **LABEL**; POTENTIAL BLOOD CLOT IMAGING AGENT; RADIATION BIOLOGY; **THROMBUS**

L8 ANSWER 6 OF 11 SCISEARCH COPYRIGHT 2001 ISI (R)
ACCESSION NUMBER: 96:795436 SCISEARCH
THE GENUINE ARTICLE: VP508
TITLE: BACTERIAL ADHESION ON POLYURETHANE SURFACES CONDITIONED WITH **THROMBUS** COMPONENTS
AUTHOR: BAUMGARTNER J N; COOPER S L (Reprint)
CORPORATE SOURCE: UNIV DELAWARE, DEPT CHEM ENGN, NEWARK, DE, 19716 (Reprint); UNIV DELAWARE, DEPT CHEM ENGN, NEWARK, DE, 19716
COUNTRY OF AUTHOR: USA
SOURCE: ASAIO JOURNAL, (SEP/OCT 1996) Vol. 42, No. 5, pp. M476-M479.
ISSN: 1058-2916.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: CLIN
LANGUAGE: ENGLISH
REFERENCE COUNT: 20
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

TI BACTERIAL ADHESION ON POLYURETHANE SURFACES CONDITIONED WITH **THROMBUS** COMPONENTS

AB . . . deposition occurs, as do activation of the blood coagulation cascade, platelet adhesion, activation, and aggregation, all of which lead to **thrombus** formation. An increased incidence of bacterial infection also has been seen clinically with indwelling biomaterial devices. Some evidence suggests a possible association between thrombosis and infection, in that adherent bacteria may provide a nidus for **thrombus** formation, or adherent **thrombi** composed of platelets and **fibrin** may form sheltered sites for bacterial adhesion.(1,2) In the current study, the authors examined Staphylococcus aureus adhesion to sulfonated, aminated,. . . Bacterial adhesion was observed in a radial flow chamber mounted on the motorized stage of a video microscopy system, with **image** processing software used to perform automated data collection and **image** analysis. Scanning electron microscopy also was used to visualize cross-linked **fibrin** and bacterial adhesion on these surfaces. Bacterial adhesion was found to be lowest on the phosphonated polyurethane. The presence of **fibrin** or isolated platelets significantly increased bacterial adhesion compared to surfaces pre-adsorbed with albumin.

STP KeyWords Plus (R): STAPHYLOCOCCUS-AUREUS; MEDIATED ADHESION; **FIBRONECTIN**; INFECTION; ADHERENCE; EPIDERMIDIS; FIBRINOGEN; FLOW

L8 ANSWER 7 OF 11 MEDLINE
ACCESSION NUMBER: 94291101 MEDLINE
DOCUMENT NUMBER: 94291101 PubMed ID: 8020011
TITLE: [Imaging in atherosclerosis: scintigraphy techniques].

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IT Miscellaneous Descriptors
BLOOD AND LYMPHATIC DISEASE; BLOOD AND LYMPHATICS; **FIBRIN** RECOMBINANT POLYPEPTIDES; FIBRINOGEN; **FIBRONECTIN**; INDIUM-111 **LABEL**; IODINE-125 **LABEL**; POTENTIAL BLOOD CLOT IMAGING AGENT; RADIATION BIOLOGY; **THROMBUS**

L8 ANSWER 6 OF 11 SCISEARCH COPYRIGHT 2001 ISI (R)
ACCESSION NUMBER: 96:795436 SCISEARCH
THE GENUINE ARTICLE: VP508
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FILE SEGMENT: CLIN
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STP KeyWords Plus (R): STAPHYLOCOCCUS-AUREUS; MEDIATED ADHESION; **FIBRONECTIN**; INFECTION; ADHERENCE; EPIDERMIDIS; FIBRINOGEN; FLOW

L8 ANSWER 7 OF 11 MEDLINE
ACCESSION NUMBER: 94291101 MEDLINE
DOCUMENT NUMBER: 94291101 PubMed ID: 8020011
TITLE: [Imaging in atherosclerosis: scintigraphy techniques].

Imaging nell'aterosclerosi: tecniche scintigrafiche.
AUTHOR: Greco C; Scopinaro F; Centi Colella A; Campa P P
CORPORATE SOURCE: II Cattedra di Cardiologia, Universita degli Studi La Sapienza, Roma.
SOURCE: CARDIOLOGIA, (1993 Dec) 38 (12 Suppl 1) 13-9.
Journal code: COE; 8506637. ISSN: 0393-1978.
PUB. COUNTRY: Italy
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Italian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199408
ENTRY DATE: Entered STN: 19940815
Last Updated on STN: 19940815
Entered Medline: 19940804

AB Noninvasive detection of **atherosclerotic plaques** remains a major challenge for clinical diagnosis, therapy and prognosis. Several approaches have been explored as a tool for **thrombus** imaging, using platelets, antiplatelet antibodies and **fibronectin** or as a direct metabolic **marker** as low density lipoproteins or photophrine II. We tested the affinity of a new F(ab')2 monoclonal antibody (TRF1) against human fragment D-dimer of cross-linked **fibrin**, for **atherosclerotic plaques** free of detectable **thrombi** on their surface. Six atherosclerotic segments of carotid and femoral arteries, and (as a control) 5 segments of atherosclerosis-free internal. . . from 11 male patients undergoing bypass surgery. All segments were carefully washed in order to dissolve and remove possible endoluminal **thrombi**, and were subsequently cut to obtain couples of fragments of intima of similar weight, containing **atherosclerotic plaques** (n 16), or fatty streaks (n 12), or normal endothelium (n 20). Each fragment was separately put into a radioimmunoassay. . . By contrast, TRF1 binding was significantly higher ($p < 0.001$) in atherosclerotic than in normal fragments (26.0 +/- 11.5% in **atherosclerotic plaques**, versus 9.23 +/- 9% in fatty streaks, versus 1.9 +/- 0.6% in normal endothelium.(ABSTRACT TRUNCATED AT 250 WORDS)

L8 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:443664 CAPLUS
DOCUMENT NUMBER: 117:43664
TITLE: Polypeptides containing the **fibrin**-binding domain of **fibronectin**, their recombinant production, and their use in imaging and therapy
INVENTOR(S): Vogel, Tikva; Levanon, Avigdor; Werber, Moshe; Guy, Rachel; Panet, Amos; Hartman, Jacob; Shaked, Hadassa
PATENT ASSIGNEE(S): Bio-Technology General Corp., USA
SOURCE: PCT Int. Appl., 192 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9117765	A1	19911128	WO 1991-US3584	19910521
W: AU, BR, CA, FI, HU, JP, KR, NO, SU				

Imaging nell'aterosclerosi: tecniche scintigrafiche.
AUTHOR: Greco C; Scopinaro F; Centi Colella A; Campa P P
CORPORATE SOURCE: II Cattedra di Cardiologia, Universita degli Studi La Sapienza, Roma.
SOURCE: CARDIOLOGIA, (1993 Dec) 38 (12 Suppl 1) 13-9.
Journal code: COE; 8506637. ISSN: 0393-1978.
PUB. COUNTRY: Italy
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Italian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199408
ENTRY DATE: Entered STN: 19940815
Last Updated on STN: 19940815
Entered Medline: 19940804

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L8 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:443664 CAPLUS
DOCUMENT NUMBER: 117:43664
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PATENT ASSIGNEE(S): Bio-Technology General Corp., USA
SOURCE: PCT Int. Appl., 192 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9117765	A1	19911128	WO 1991-US3584	19910521
W: AU, BR, CA, FI, HU, JP, KR, NO, SU				

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE

US	5270030	A	19931214	US 1990-526397	19900521
AU	9180760	A1	19911210	AU 1991-80760	19910521
AU	660618	B2	19950706		
JP	05508766	T2	19931209	JP 1991-511197	19910521
HU	66189	A2	19941028	HU 1992-3516	19910521
HU	216302	B	19990628		
EP	651799	A1	19950510	EP 1991-911888	19910521
EP	651799	B1	19990818		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE

RU	2109750	C1	19980427	RU 1992-16360	19910521
AT	183545	E	19990915	AT 1991-911888	19910521
ES	2137928	T3	20000101	ES 1991-911888	19910521
NO	9204405	A	19930113	NO 1992-4405	19921113
US	5455158	A	19951003	US 1993-58241	19930504
US	5679320	A	19971021	US 1994-259569	19940614
US	5965383	A	19991012	US 1995-409750	19950324
US	5869616	A	19990209	US 1997-826885	19970408
US	6121426	A	20000919	US 1997-909140	19970811

PRIORITY APPLN. INFO.:

US	1990-526397	A	19900521
US	1988-291951	B2	19881229
US	1989-345952	B2	19890428
CA	1989-2006929	A	19891229
US	1991-703842	B1	19910521
WO	1991-US3584	A	19910521
US	1993-58241	A1	19930504
US	1994-259569	A3	19940614
US	1995-409750	A3	19950324

TI Polypeptides containing the **fibrin**-binding domain of **fibronectin**, their recombinant production, and their use in imaging and therapy

AB Polypeptides having amino acid sequences substantially present in the **fibrin**-binding domain (FBD) of human **fibronectin** are labeled with an imageable **marker** and used in imaging a **thrombus** or **atherosclerotic plaque**. Thrombolytic agents bound to the FBD polypeptides are also claimed. Wounds are treated with fusion products of the FBD polypeptide and a polypeptide comprising the cell-binding domain of human **fibronectin**. A human **fibronectin** cDNA library was prepd. and used in cloning and making various FBD polypeptides. The polypeptides were modified with DTPA and radiolabeled with 111In and shown to bind to preformed **thrombi** and **thrombi** in vivo. They gave a high **thrombus**:blood ratio of 80-200 after 24 h. The bacterial binding domain of **fibronectin** was shown to be sepd. from the FBD since a 31-kDa recombinant FBD polypeptide contg. the entire FBD (residues 1-262 of **fibronectin**) bound to Staphylococcus aureus, while 18.5 kDa and 12 kDa polypeptides contg. the 1st 154 and 109 amino acid residues of **fibronectin**, resp., did not. The 18.5 and 12 kDa polypeptides had a high covalent binding specificity for **fibrin** together with a narrower spectrum of activities and lower specificity for other ligands such as vascular components and bacteria than the 31 kDa protein which is advantageous for **thrombus** imaging.

ST **fibrin** binding polypeptide **fibronectin** imaging; cloning **fibronectin** cDNA **fibrin** binding protein; **thrombus** imaging **fibrin** binding protein; atherosclerosis plaque imaging

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE

US	5270030	A	19931214	US 1990-526397	19900521
AU	9180760	A1	19911210	AU 1991-80760	19910521
AU	660618	B2	19950706		
JP	05508766	T2	19931209	JP 1991-511197	19910521
HU	66189	A2	19941028	HU 1992-3516	19910521
HU	216302	B	19990628		
EP	651799	A1	19950510	EP 1991-911888	19910521
EP	651799	B1	19990818		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE

RU	2109750	C1	19980427	RU 1992-16360	19910521
AT	183545	E	19990915	AT 1991-911888	19910521
ES	2137928	T3	20000101	ES 1991-911888	19910521
NO	9204405	A	19930113	NO 1992-4405	19921113
US	5455158	A	19951003	US 1993-58241	19930504
US	5679320	A	19971021	US 1994-259569	19940614
US	5965383	A	19991012	US 1995-409750	19950324
US	5869616	A	19990209	US 1997-826885	19970408
US	6121426	A	20000919	US 1997-909140	19970811

PRIORITY APPLN. INFO.:

US	1990-526397	A	19900521
US	1988-291951	B2	19881229
US	1989-345952	B2	19890428
CA	1989-2006929	A	19891229
US	1991-703842	B1	19910521
WO	1991-US3584	A	19910521
US	1993-58241	A1	19930504
US	1994-259569	A3	19940614
US	1995-409750	A3	19950324

TI Polypeptides containing the **fibrin**-binding domain of **fibronectin**, their recombinant production, and their use in imaging and therapy

AB Polypeptides having amino acid sequences substantially present in the **fibrin**-binding domain (FBD) of human **fibronectin** are labeled with an imageable **marker** and used in imaging a **thrombus** or **atherosclerotic plaque**. Thrombolytic agents bound to the FBD polypeptides are also claimed. Wounds are treated with fusion products of the FBD polypeptide and a polypeptide comprising the cell-binding domain of human **fibronectin**. A human **fibronectin** cDNA library was prepd. and used in cloning and making various FBD polypeptides. The polypeptides were modified with DTPA and radiolabeled with 111In and shown to bind to preformed **thrombi** and **thrombi** in vivo. They gave a high **thrombus**:blood ratio of 80-200 after 24 h. The bacterial binding domain of **fibronectin** was shown to be sepd. from the FBD since a 31-kDa recombinant FBD polypeptide contg. the entire FBD (residues 1-262 of **fibronectin**) bound to Staphylococcus aureus, while 18.5 kDa and 12 kDa polypeptides contg. the 1st 154 and 109 amino acid residues of **fibronectin**, resp., did not. The 18.5 and 12 kDa polypeptides had a high covalent binding specificity for **fibrin** together with a narrower spectrum of activities and lower specificity for other ligands such as vascular components and bacteria than the 31 kDa protein which is advantageous for **thrombus** imaging.

ST **fibrin** binding polypeptide **fibronectin** imaging; cloning **fibronectin** cDNA **fibrin** binding protein; **thrombus** imaging **fibrin** binding protein; atherosclerosis plaque imaging

IT Bacteria
Cell
Escherichia coli
(DNA for **fibrin**-binding polypeptide of human **fibronectin** cloning and expression in)
IT Plasmid and Episome
(DNA for **fibrin**-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Gene, animal
RL: BIOL (Biological study)
(cDNA, for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression in Escherichia coli of)
IT Blood vessel, composition
(components of, recombinant **fibrin**-binding polypeptides of human **fibronectin** response to)
IT Thrombolytics
(conjugates with **fibrin**-binding polypeptides of human **fibronectin**)
IT **Fibrins**
RL: BIOL (Biological study)
(domain of human **fibronectin** binding to, labeled polypeptides contg., for imaging)
IT Wound healing promoters
(**fibrin**-binding polypeptides of human **fibronectin** and cell-binding polypeptides of **fibronectin** as)
IT **Fibronectins**
RL: BIOL (Biological study)
(**fibrin**-binding polypeptides of, labeled, for imaging)
IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression of)
IT Anticoagulants and Antithrombotics
(fusion proteins contg. **fibrin**-binding polypeptides of human **fibronectin** as)
IT **Thrombus** and Blood clot
(imaging of, with labeled **fibrin**-binding polypeptides of human **fibronectin**)
IT Imaging
(labeled **fibrin**-binding polypeptides of **fibronectin** for)
IT Molecular cloning
(of DNA for **fibrin**-binding polypeptides of human **fibronectin** on)
IT Plasmid and Episome
(pFN194-2, DNA for fusion protein contg. **fibrin**-binding and cell-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN195-4, DNA for fusion protein contg. **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN196-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN197-10, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)

IT Bacteria
Cell
Escherichia coli
(DNA for **fibrin**-binding polypeptide of human **fibronectin** cloning and expression in)
IT Plasmid and Episome
(DNA for **fibrin**-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Gene, animal
RL: BIOL (Biological study)
(cDNA, for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression in Escherichia coli of)
IT Blood vessel, composition
(components of, recombinant **fibrin**-binding polypeptides of human **fibronectin** response to)
IT Thrombolytics
(conjugates with **fibrin**-binding polypeptides of human **fibronectin**)
IT **Fibrins**
RL: BIOL (Biological study)
(domain of human **fibronectin** binding to, labeled polypeptides contg., for imaging)
IT Wound healing promoters
(**fibrin**-binding polypeptides of human **fibronectin** and cell-binding polypeptides of **fibronectin** as)
IT **Fibronectins**
RL: BIOL (Biological study)
(**fibrin**-binding polypeptides of, labeled, for imaging)
IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression of)
IT Anticoagulants and Antithrombotics
(fusion proteins contg. **fibrin**-binding polypeptides of human **fibronectin** as)
IT **Thrombus** and Blood clot
(imaging of, with labeled **fibrin**-binding polypeptides of human **fibronectin**)
IT Imaging
(labeled **fibrin**-binding polypeptides of **fibronectin** for)
IT Molecular cloning
(of DNA for **fibrin**-binding polypeptides of human **fibronectin** on)
IT Plasmid and Episome
(pFN194-2, DNA for fusion protein contg. **fibrin**-binding and cell-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN195-4, DNA for fusion protein contg. **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN196-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN197-10, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)

IT Plasmid and Episome
(pFN202-5, DNA for fusion protein contg. **fibrin**-binding and cell-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN203-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN205-5, DNA for fusion protein contg. **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN208-13, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN962-3, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Extracellular matrix
Staphylococcus aureus
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding response to)
IT Burn
Eye, disease
(wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Endothelium
(Staphylococcus aureus binding to cells of, recombinant **fibrin**-binding polypeptides of human **fibronectin** effect on)
IT Imaging
(NMR, agents, paramagnetic ion conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)
IT Arteriosclerosis
(atherosclerosis, plaque, imaging of, with labeled **fibrin**-binding polypeptides of human **fibronectin**)
IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(complementary, for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression in Escherichia coli of)
IT **Fibrins**
RL: PROC (Process)
(complexes, with recombinant **fibrin**-binding polypeptides of human **fibronectin**, characterization of)
IT Radioelements, compounds
RL: BIOL (Biological study)
(conjugates, with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT Scintigraphy
(contrast agents, radioactive **isotope** conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)
IT Radiography
(contrast agents, x-ray-opaque element conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)
IT Eye
(cornea, epithelium, wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Eye
(cornea, stroma, wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Plasmid and Episome
(pFN202-5, DNA for fusion protein contg. **fibrin**-binding and cell-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN203-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN205-5, DNA for fusion protein contg. **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN208-13, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN962-3, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Extracellular matrix
Staphylococcus aureus
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding response to)
IT Burn
Eye, disease
(wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Endothelium
(Staphylococcus aureus binding to cells of, recombinant **fibrin**-binding polypeptides of human **fibronectin** effect on)
IT Imaging
(NMR, agents, paramagnetic ion conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)
IT Arteriosclerosis
(atherosclerosis, plaque, imaging of, with labeled **fibrin**-binding polypeptides of human **fibronectin**)
IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(complementary, for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression in Escherichia coli of)
IT **Fibrins**
RL: PROC (Process)
(complexes, with recombinant **fibrin**-binding polypeptides of human **fibronectin**, characterization of)
IT Radioelements, compounds
RL: BIOL (Biological study)
(conjugates, with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT Scintigraphy
(contrast agents, radioactive **isotope** conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)
IT Radiography
(contrast agents, x-ray-opaque element conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)
IT Eye
(cornea, epithelium, wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Eye
(cornea, stroma, wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Tendon
(disease, injury, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Proteins, specific or class
RL: BIOL (Biological study)
(**fibrin**-binding, labeled, of human **fibronectin**, for imaging agents)
IT Proteins, specific or class
RL: BIOL (Biological study)
(fusion products, of cell-binding domain and **fibrin**-binding domain polypeptides of human **fibronectin**)
IT Plasmid and Episome
(pFN949-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN975-25, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Magnetic substances
(para-, conjugates with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT Skin
(transplant, wound in, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Opaque materials
(x-ray, conjugates with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT 67-43-6D, DTPA, reaction products with recombinant **fibrin** -binding polypeptides of human **fibronectin**, indium-111-labeled 142298-13-3D, DTPA reaction products, indium-111-labeled 142298-17-7D, DTPA reaction products, indium-111-labeled, recombinant deriv. 142298-19-9D, DTPA reaction products, indium-111-labeled 142298-20-2D, DTPA reaction products, indium-111-labeled
RL: BIOL (Biological study)
(atherosclerotic lesions and **thrombi** imaging with)
IT 142298-11-1
RL: BIOL (Biological study)
(cloning of cDNA for, in recombinant **fibrin**-binding polypeptides prepn. for imaging agents)
IT 142244-17-5 142244-18-6
RL: PROC (Process)
(cloning of, in recombinant **fibrin**-binding polypeptides prepn. for imaging agents)
IT 10043-66-0D, Iodine-131, **fibrin**-binding polypeptide conjugates 14119-09-6D, Gallium-67, **fibrin**-binding polypeptide conjugates 14158-31-7D, Iodine-125, **fibrin**-binding polypeptide conjugates 14932-42-4D, Xenon-133, **fibrin**-binding polypeptide conjugates 15715-08-9D, Iodine-123, **fibrin**-binding polypeptide conjugates 15750-15-9D, Indium-111, **fibrin**-binding polypeptide conjugates 141517-93-3D, fusion product with **fibrin**-binding polypeptides of human **fibronectin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(for imaging)
IT 142298-12-2, 1-109-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced) 142298-16-6, 1-153-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced) 142298-17-7 142298-18-8, 1-154-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced)
RL: BIOL (Biological study)
(for imaging agent)

IT Tendon
(disease, injury, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Proteins, specific or class
RL: BIOL (Biological study)
(**fibrin**-binding, labeled, of human **fibronectin**, for imaging agents)
IT Proteins, specific or class
RL: BIOL (Biological study)
(fusion products, of cell-binding domain and **fibrin**-binding domain polypeptides of human **fibronectin**)
IT Plasmid and Episome
(pFN949-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN975-25, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Magnetic substances
(para-, conjugates with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT Skin
(transplant, wound in, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Opaque materials
(x-ray, conjugates with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT 67-43-6D, DTPA, reaction products with recombinant **fibrin**-binding polypeptides of human **fibronectin**, indium-111-labeled 142298-13-3D, DTPA reaction products, indium-111-labeled 142298-17-7D, DTPA reaction products, indium-111-labeled, recombinant deriv. 142298-19-9D, DTPA reaction products, indium-111-labeled 142298-20-2D, DTPA reaction products, indium-111-labeled
RL: BIOL (Biological study)
(atherosclerotic lesions and **thrombi** imaging with)
IT 142298-11-1
RL: BIOL (Biological study)
(cloning of cDNA for, in recombinant **fibrin**-binding polypeptides prepn. for imaging agents)
IT 142244-17-5 142244-18-6
RL: PROC (Process)
(cloning of, in recombinant **fibrin**-binding polypeptides prepn. for imaging agents)
IT 10043-66-0D, Iodine-131, **fibrin**-binding polypeptide conjugates 14119-09-6D, Gallium-67, **fibrin**-binding polypeptide conjugates 14158-31-7D, Iodine-125, **fibrin**-binding polypeptide conjugates 14932-42-4D, Xenon-133, **fibrin**-binding polypeptide conjugates 15715-08-9D, Iodine-123, **fibrin**-binding polypeptide conjugates 15750-15-9D, Indium-111, **fibrin**-binding polypeptide conjugates 141517-93-3D, fusion product with **fibrin**-binding polypeptides of human **fibronectin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(for imaging)
IT 142298-12-2, 1-109-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced) 142298-16-6, 1-153-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced) 142298-17-7 142298-18-8, 1-154-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced)
RL: BIOL (Biological study)
(for imaging agent)

IT 14133-76-7D, Technetium-99, **fibrin**-binding polypeptide conjugates 15678-91-8D, **fibrin**-binding polypeptide conjugates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(for imaging, metastable)
IT 141497-06-5 141497-07-6
RL: PRP (Properties)
(imageable **marker**-labeled **fibrin**-binding polypeptides of **fibronectin** contg. amino-terminal sequence of, for imaging agents)
IT 68181-17-9DP, N-Succinimidyl-3-(2-pyridyldithio)propionate, reaction products with recombinant **fibrin**-binding polypeptides of human **fibronectin** and thiolated streptokinase
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of and biol. activity of)
IT 80146-85-6, Transglutaminase
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding to **fibrin** clot in response to)
IT 9005-49-6, Heparin, biological studies
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding to **fibrin** clots response to)
IT 9005-49-6D, Heparin, Sepharose conjugates 9012-36-6D, Sepharose, heparin
conjugates
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** purifn. with)
IT 9001-92-7D, Protease, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 9002-01-1D, Streptokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 9039-53-6D, Urokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 81669-57-0D, Anistreplase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 82657-92-9D, Prourokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 139639-23-9D, conjugates with **fibrin** -binding polypeptides of human **fibronectin**
RL: BIOL (Biological study)
(**thrombus** treatment with)

L8 ANSWER 9 OF 11 MEDLINE
ACCESSION NUMBER: 88274546 MEDLINE
DOCUMENT NUMBER: 88274546 PubMed ID: 3392585
TITLE: Iodine-131-labeled **fibronectin**: potential agent for imaging atherosclerotic lesion and **thrombus**.
AUTHOR: Uehara A; Isaka Y; Hashikawa K; Kimura K; Kozuka T; Kamada T; Etani H; Yoneda S; Imaizumi M
CORPORATE SOURCE: First Department of Internal Medicine, Osaka University Medical School, Japan.
SOURCE: JOURNAL OF NUCLEAR MEDICINE, (1988 Jul) 29 (7) 1264-7.
Journal code: JEC; 0217410. ISSN: 0161-5505.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198808

IT 14133-76-7D, Technetium-99, **fibrin**-binding polypeptide conjugates 15678-91-8D, **fibrin**-binding polypeptide conjugates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(for imaging, metastable)
IT 141497-06-5 141497-07-6
RL: PRP (Properties)
(imageable **marker**-labeled **fibrin**-binding polypeptides of **fibronectin** contg. amino-terminal sequence of, for imaging agents)
IT 68181-17-9DP, N-Succinimidyl-3-(2-pyridyldithio)propionate, reaction products with recombinant **fibrin**-binding polypeptides of human **fibronectin** and thiolated streptokinase
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of and biol. activity of)
IT 80146-85-6, Transglutaminase
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding to **fibrin** clot in response to)
IT 9005-49-6, Heparin, biological studies
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding to **fibrin** clots response to)
IT 9005-49-6D, Heparin, Sepharose conjugates 9012-36-6D, Sepharose, heparin
conjugates
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** purifn. with)
IT 9001-92-7D, Protease, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 9002-01-1D, Streptokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 9039-53-6D, Urokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 81669-57-0D, Anistreplase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 82657-92-9D, Prourokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 139639-23-9D, conjugates with **fibrin**-binding polypeptides of human **fibronectin**
RL: BIOL (Biological study)
(**thrombus** treatment with)

L8 ANSWER 9 OF 11 MEDLINE
ACCESSION NUMBER: 88274546 MEDLINE
DOCUMENT NUMBER: 88274546 PubMed ID: 3392585
TITLE: Iodine-131-labeled **fibronectin**: potential agent for imaging atherosclerotic lesion and **thrombus**.
AUTHOR: Uehara A; Isaka Y; Hashikawa K; Kimura K; Kozuka T; Kamada T; Etani H; Yoneda S; Imaizumi M
CORPORATE SOURCE: First Department of Internal Medicine, Osaka University Medical School, Japan.
SOURCE: JOURNAL OF NUCLEAR MEDICINE, (1988 Jul) 29 (7) 1264-7.
Journal code: JEC; 0217410. ISSN: 0161-5505.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198808

ENTRY DATE: Entered STN: 19900308
Last Updated on STN: 19900308
Entered Medline: 19880819

TI Iodine-131-labeled **fibronectin**: potential agent for imaging atherosclerotic lesion and **thrombus**.

AB **Fibronectin** is known to interact with **fibrin**, collagen, etc. We have labeled **fibronectin** with 131I, and measured its accumulation in the deendothelialized lesion in the rabbit aorta to evaluate it as a candidate for imaging atherosclerotic lesions and **thrombi**. Accumulation of [131I] **fibronectin** in the deendothelialized lesion was apparent at 48 hr, and increased at 72 hr after injection of the agent. Our results indicate that radiolabeled **fibronectin** may be a useful tracer for imaging early atherosclerotic lesion and **thrombus**.

CT Check Tags: Animal; Male
*Arteriosclerosis: RI, radionuclide imaging
***Fibronectins: DU, diagnostic use**
*Iodine Radioisotopes: DU, diagnostic use
Isotope Labeling: MT, methods
Rabbits
*Thrombosis: RI, radionuclide imaging

CN 0 (**Fibronectins**); 0 (Iodine Radioisotopes)

L8 ANSWER 10 OF 11 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 3
ACCESSION NUMBER: 82154437 EMBASE
DOCUMENT NUMBER: 1982154437
TITLE: [Distribution of **fibronectin** in renal pathology].
DISTRIBUTION DE LA FIBRONECTINE EN PATHOLOGIE RENALE.
AUTHOR: Birembaut P.; Gaillard D.; Labat-Robert J.; Robert L.
CORPORATE SOURCE: Lab. Pol Bouin, CHU, 51100 Reims, France
SOURCE: Nephrologie, (1982) 3/1 (23-26).
CODEN: NEPHDY
COUNTRY: Switzerland
DOCUMENT TYPE: Journal
FILE SEGMENT: 028 Urology and Nephrology
005 General Pathology and Pathological Anatomy
LANGUAGE: French
SUMMARY LANGUAGE: English

TI [Distribution of **fibronectin** in renal pathology].
DISTRIBUTION DE LA FIBRONECTINE EN PATHOLOGIE RENALE.

AB The distribution of **fibronectin** (FN), a major glycoproteic component of extracellular matrix, has been detected in the human kidney by an indirect immunofluorescence technique. . . of glomeruli. In glomerulonephritis with endo- and/or extracapillary proliferation, FN was increased around messangial cells. FN was also bound to **fibrin** in epithelial crescents, fibrinoid necrosis and in **thrombi** of thrombotic microangiopathy. FN was increased in the mesangium of diabetic glomeruli without endocappillary proliferation. FN has not been found in amyloid deposits and in sclerosed glomeruli. We therefore conclude that FN is a good mesangial **marker** and is probably involved in the inflammatory process.

CT Medical Descriptors:
*inflammation
*kidney disease
*mesangium
kidney
histology

ENTRY DATE: Entered STN: 19900308
Last Updated on STN: 19900308
Entered Medline: 19880819

TI Iodine-131-labeled **fibronectin**: potential agent for imaging atherosclerotic lesion and **thrombus**.

AB **Fibronectin** is known to interact with **fibrin**, collagen, etc. We have labeled **fibronectin** with 131I, and measured its accumulation in the deendothelialized lesion in the rabbit aorta to evaluate it as a candidate for imaging atherosclerotic lesions and **thrombi**. Accumulation of [131I] **fibronectin** in the deendothelialized lesion was apparent at 48 hr, and increased at 72 hr after injection of the agent. Our results indicate that radiolabeled **fibronectin** may be a useful tracer for imaging early atherosclerotic lesion and **thrombus**.

CT Check Tags: Animal; Male
*Arteriosclerosis: RI, radionuclide imaging
***Fibronectins: DU, diagnostic use**
*Iodine Radioisotopes: DU, diagnostic use
Isotope Labeling: MT, methods
Rabbits
*Thrombosis: RI, radionuclide imaging

CN 0 (**Fibronectins**); 0 (Iodine Radioisotopes)

L8 ANSWER 10 OF 11 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 3
ACCESSION NUMBER: 82154437 EMBASE
DOCUMENT NUMBER: 1982154437
TITLE: [Distribution of **fibronectin** in renal pathology]. DISTRIBUTION DE LA FIBRONECTINE EN PATHOLOGIE RENALE.
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*inflammation
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histology

***fibronectin**
RN (**fibronectin**) 86088-83-7

L8 ANSWER 11 OF 11 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1982:307656 BIOSIS
DOCUMENT NUMBER: BA74:80136
TITLE: DISTRIBUTION OF **FIBRONECTIN** IN RENAL PATHOLOGY.
AUTHOR(S): BIREMBAUT P; GAILLARD D; LABAT-ROBERT J; ROBERT L
CORPORATE SOURCE: LAB. POL BOUIN, CENT. HOSP. UNIV., 51100 REIMS.
SOURCE: NEPHROLOGIE, (1902) 3 (1), 23-26.
CODEN: NEPHDY. ISSN: 0250-4960.
FILE SEGMENT: BA; OLD
LANGUAGE: French
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=> dis L9 1-9 ibib kwic

L9 ANSWER 1 OF 9 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 1
ACCESSION NUMBER: 2001142593 EMBASE
TITLE: Radiolabeled peptides in the detection of deep venous thrombosis.
AUTHOR: Taillefer R.
CORPORATE SOURCE: Dr. R. Taillefer, Department of Nuclear Medicine, Hotel-Dieu de Montreal, 3840 rue St-Urbain, Montreal, H2W 1T8, Canada
SOURCE: Seminars in Nuclear Medicine, (2001) 31/2 (102-123).
Refs: 55
ISSN: 0001-2998 CODEN: SMNMAB
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 023 Nuclear Medicine
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB . . . by various disease-related and technical factors. An alternative approach to the diagnosis of acute DVT is to detect a molecular **marker** of acute DVT that is not present in old, organized DVT. Recent advances in biotechnology permit the use of highly specific synthetic peptide or small molecular **markers**, which are involved in the acute stages of DVT formation and can be labeled efficiently with (99m)Tc. (99m)Tc-apcitide, a glycoprotein. . . acute DVT. Two other agents are currently under clinical investigation: (99m)Tc-DMP 444, which is another GP IIb/IIIa receptor antagonist, and (99m)Tc-**Fibrin-Binding Domain** (FBD), a radio-labeled **fibrin-binding domain** of **fibronectin**. Different clinical studies have shown a high diagnostic accuracy with these

***fibronectin**
RN (**fibronectin**) 86088-83-7

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synthetic (99m)Tc-labeled peptides in the detection of acute DVT.. . .

CT Medical Descriptors:
*deep vein thrombosis: DI, diagnosis
*protein analysis
isotope labeling
peptide analysis
diagnostic value
reliability
color ultrasound flowmetry
biotechnology
drug mechanism
human
human tissue
human cell
review
***fibronectin: EC, endogenous compound**
*fibrinogen receptor antagonist: PD, pharmacology
*technetium 99m
RN (**fibronectin**) 86088-83-7; (technetium 99m) 14133-76-7

L9 ANSWER 2 OF 9 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 2001:225518 BIOSIS
DOCUMENT NUMBER: PREV200100225518
TITLE: **Fibrin binding domain** polypeptides and uses and methods of producing same.
AUTHOR(S): Vogel, Tikv (1); Levanon, Avigdor; Werber, Moshe; Guy, Rachel; Panet, Amos
CORPORATE SOURCE: (1) Rehovot Israel
ASSIGNEE: Bio-Technology General Corp.
PATENT INFORMATION: US 6121426 September 19, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Sep. 19, 2000) Vol. 1238, No. 3, pp. No Pagination. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
TI **Fibrin binding domain** polypeptides and uses and methods of producing same.
AB This invention provides an imaging agent which comprises a polypeptide labeled with an imageable **marker**, such polypeptide having an amino acid sequence substantially present in the **fibrin binding domain** of naturally-occurring human **fibronectin** and being capable of binding to **fibrin**. The invention further provides a method wherein the imaging agent is used for imaging a **fibrin**-containing substance, i.e., a thrombus or atherosclerotic plaque. Further provided are plasmids for expression of polypeptides having an amino acid sequence substantially present in the **fibrin binding domain** of naturally-occurring human **fibronectin** and being capable of binding to **fibrin** , hosts containing these plasmids, methods of producing the polypeptides, methods of treatment using the polypeptides, and methods of recovering, refolding. . . purified polypeptides substantially free of other substances of human origin which have an amino acid sequence substantially present in the **fibrin binding domain** of naturally-occurring human **fibronectin** and which are capable of binding to **fibrin**.

synthetic (99m)Tc-labeled peptides in the detection of acute DVT.. . .

CT Medical Descriptors:
*deep vein thrombosis: DI, diagnosis
*protein analysis
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peptide analysis
diagnostic value
reliability
color ultrasound flowmetry
biotechnology
drug mechanism
human
human tissue
human cell
review
***fibronectin: EC, endogenous compound**
*fibrinogen receptor antagonist: PD, pharmacology
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RN (**fibronectin**) 86088-83-7; (technetium 99m) 14133-76-7

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IT Major Concepts
Biochemistry and Molecular Biophysics; Radiology (Medical Sciences)
IT Chemicals & Biochemicals
fibrin binding domain polypeptides: imaging agents
IT Miscellaneous Descriptors
fibrin-containing domain

L9 ANSWER 3 OF 9 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 2000:277499 BIOSIS
DOCUMENT NUMBER: PREV200000277499
TITLE: **Fibrin binding domain** polypeptides and uses and methods of producing same.
AUTHOR(S): Vogel, Tikv (1); Levanon, Avigdor; Werber, Moshe; Guy, Rachel; Panet, Amos
CORPORATE SOURCE: (1) Rehovot Israel
ASSIGNEE: Bio-Technology General Corp., Iselin, NJ, USA
PATENT INFORMATION: US 5965383 October 12, 1999
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 12, 1999) Vol. 1227, No. 2, pp. No pagination. e-file..
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
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IT Major Concepts
Biochemistry and Molecular Biophysics; Cardiovascular Medicine (Human Medicine, Medical Sciences); Methods and Techniques
IT Chemicals & Biochemicals
fibrin; polypeptide: **fibrin binding domain**, imaging agent

L9 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:9677 CAPLUS
DOCUMENT NUMBER: 130:78109
TITLE: Application of 13C-13C, 13C-15N, and 13C-13C-15N isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic

IT Major Concepts
Biochemistry and Molecular Biophysics; Radiology (Medical Sciences)
IT Chemicals & Biochemicals
fibrin binding domain polypeptides: imaging agents
IT Miscellaneous Descriptors
fibrin-containing domain

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IT Major Concepts
Biochemistry and Molecular Biophysics; Cardiovascular Medicine (Human Medicine, Medical Sciences); Methods and Techniques
IT Chemicals & Biochemicals
fibrin; polypeptide: **fibrin binding domain**, imaging agent

L9 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:9677 CAPLUS
DOCUMENT NUMBER: 130:78109
TITLE: Application of 13C-13C, 13C-15N, and 13C-13C-15N isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic

resonance imaging
INVENTOR(S): Montelione, Gaetano T.; Stein, Stanley
PATENT ASSIGNEE(S): University of Medicine & Dentistry of New Jersey, USA;
Rutgers University
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9857578	A1	19981223	WO 1998-US12568	19980617
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9879727	A1	19990104	AU 1998-79727	19980617

PRIORITY APPLN. INFO.: US 1997-878022 A 19970618
US 1997-63252 P 19971024
WO 1998-US12568 W 19980617

REFERENCE COUNT: 3
REFERENCE(S): (1) Bogdanov; US 5593658 A 1997
(2) Brixner; US 5094848 A 1992 CAPLUS
(3) Sinn; US 5308604 A 1994 CAPLUS

TI Application of 13C-13C, 13C-15N, and 13C-13C-15N isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging

IT Platelet (blood)
(activated-platelet binding protein; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Nucleic acids
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(binding proteins for; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT MRI contrast agents
Spin-spin relaxation
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Antigens
Receptors
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Antibody conjugates

resonance imaging
INVENTOR(S): Montelione, Gaetano T.; Stein, Stanley
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RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
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IT Antibody conjugates

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Monoclonal antibody conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Peptide conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Protein conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Proteins (general), biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Organic compounds, biological studies
Single chain antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Fibronectins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**fibrin-binding domain** fragment;
carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Infection
(infectious agent antigen or receptor targeting group;
carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for MRI)

IT Proteins (specific proteins and subclasses)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ligand-binding, nucleic acid- and protein-, conjugates;
carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Fibrins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(monoclonal antibodies to; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
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IT Monoclonal antibody conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Peptide conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Protein conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Proteins (general), biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Organic compounds, biological studies
Single chain antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Fibronectins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**fibrin-binding domain** fragment;
carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT Infection
(infectious agent antigen or receptor targeting group;
carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for MRI)

IT Proteins (specific proteins and subclasses)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ligand-binding, nucleic acid- and protein-, conjugates;
carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

IT **Fibrins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(monoclonal antibodies to; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic

resonance imaging)
IT .beta.-Amyloid
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(plaque, targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)
IT Thrombus
(targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)
IT Antigens
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(tumor-specific antigens; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)
IT Alzheimer's disease
(.beta.-amyloid plaque targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically
enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)
IT 108-77-0D, Cyanuric chloride, reaction products with tissue-directed targeting group and isotopically enriched protein 573-58-0D, Congo red, conjugates 3934-20-1D, 2,4-Dichloropyrimidine, reaction products with tissue-directed targeting group and isotopically enriched protein 14390-96-6, Nitrogen-15, biological studies 14762-74-4, Carbon-13, biological studies 20342-94-3D, reaction products with tissue-directed targeting group and isotopically enriched protein 58626-38-3D, reaction products with tissue-directed targeting group and isotopically enriched protein 218432-70-3D, conjugates
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)
IT 139639-23-9, Tissue plasminogen activator
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inactivated, conjugates; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)

L9 ANSWER 5 OF 9 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 2
ACCESSION NUMBER: 1997:244476 BIOSIS
DOCUMENT NUMBER: PREV199799543679
TITLE: Recombinant polypeptides derived from the **fibrin binding domain** of **fibronectin** are potential agents for the imaging of blood clots.
AUTHOR(S): Ezov, N.; Nimrod, A.; Parizada, B.; Erber, M. M.; Goldlust, A.; Greenstein, L. A.; Vogel, T.; Drizlich, N.; Levanon, A.; Reich, S.; Gorecki, M.; Panet, A. (1)
CORPORATE SOURCE: (1) Bio-Technol. Gen., Kiryat Weizmann, Rehovot 76326 Israel
SOURCE: Thrombosis and Haemostasis, (1997) Vol. 77, No. 4, pp. 796-803.

resonance imaging)
IT .beta.-Amyloid
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(plaque, targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)
IT Thrombus
(targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)
IT Antigens
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(tumor-specific antigens; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)
IT Alzheimer's disease
(.beta.-amyloid plaque targeting group; carbon-13-carbon-13, carbon-13-nitrogen-15, and carbon-13-carbon-13-nitrogen-15 isotopically
enriched proteins as tissue-directed **image**-enhancement reagents for magnetic resonance imaging)
IT 108-77-0D, Cyanuric chloride, reaction products with tissue-directed targeting group and isotopically enriched protein 573-58-0D, Congo red, conjugates 3934-20-1D, 2,4-Dichloropyrimidine, reaction products with tissue-directed targeting group and isotopically enriched protein 14390-96-6, Nitrogen-15, biological studies 14762-74-4, Carbon-13, biological studies 20342-94-3D, reaction products with tissue-directed targeting group and isotopically enriched protein 58626-38-3D, reaction products with tissue-directed targeting group and isotopically enriched protein 218432-70-3D, conjugates
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RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
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L9 ANSWER 5 OF 9 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 2
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CORPORATE SOURCE: (1) Bio-Technol. Gen., Kiryat Weizmann, Rehovot 76326 Israel
SOURCE: Thrombosis and Haemostasis, (1997) Vol. 77, No. 4, pp. 796-803.

ISSN: 0340-6245.
DOCUMENT TYPE: Article
LANGUAGE: English
TI Recombinant polypeptides derived from the **fibrin binding domain** of **fibronectin** are potential agents for the imaging of blood clots.
AB Thrombus formation in the circulation is accompanied by covalent linkage of **fibronectin** (FN) through transglutamination of glutamine no. 3 in the **fibrin** binding amino terminal domain (FBD) of FN. We have exploited this phenomenon for thrombus detection by the employment of radioactively-labelled. . . FBD ("5 fingers"), were prepared and compared to native FN-derived 31 kDa-FBD with respect to their ability to attach to **fibrin** clots in vitro and in vivo. The accessibility of Gln-3 in these molecules was demonstrated by the incorporation of stoichiometric amounts of 14C-putrescine in the presence of plasma transglutaminase. Competitive binding experiments to **fibrin** have indicated that, although the binding affinities of the FBD molecules are lower than that of FN, substantial covalent linkage. . .
IT Miscellaneous Descriptors
BLOOD AND LYMPHATIC DISEASE; BLOOD AND LYMPHATICS; **FIBRIN** RECOMBINANT POLYPEPTIDES; FIBRINOGEN; **FIBRONECTIN**; INDIUM-111 **LABEL**; IODINE-125 **LABEL**; POTENTIAL BLOOD CLOT IMAGING AGENT; RADIATION BIOLOGY; THROMBUS

L9 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:443664 CAPLUS
DOCUMENT NUMBER: 117:43664
TITLE: Polypeptides containing the **fibrin-binding domain** of **fibronectin**, their recombinant production, and their use in imaging and therapy
INVENTOR(S): Vogel, Tikva; Levanon, Avigdor; Werber, Moshe; Guy, Rachel; Panet, Amos; Hartman, Jacob; Shaked, Hadassa
PATENT ASSIGNEE(S): Bio-Technology General Corp., USA
SOURCE: PCT Int. Appl., 192 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9117765	A1	19911128	WO 1991-US3584	19910521
W: AU, BR, CA, FI, HU, JP, KR, NO, SU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5270030	A	19931214	US 1990-526397	19900521
AU 9180760	A1	19911210	AU 1991-80760	19910521
AU 660618	B2	19950706		
JP 05508766	T2	19931209	JP 1991-511197	19910521
HU 66189	A2	19941028	HU 1992-3516	19910521
HU 216302	B	19990628		
EP 651799	A1	19950510	EP 1991-911888	19910521
EP 651799	B1	19990818		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
RU 2109750	C1	19980427	RU 1992-16360	19910521
AT 183545	E	19990915	AT 1991-911888	19910521

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BLOOD AND LYMPHATIC DISEASE; BLOOD AND LYMPHATICS; **FIBRIN** RECOMBINANT POLYPEPTIDES; FIBRINOGEN; **FIBRONECTIN**; INDIUM-111 **LABEL**; IODINE-125 **LABEL**; POTENTIAL BLOOD CLOT IMAGING AGENT; RADIATION BIOLOGY; THROMBUS

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DOCUMENT NUMBER: 117:43664
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RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5270030	A	19931214	US 1990-526397	19900521
AU 9180760	A1	19911210	AU 1991-80760	19910521
AU 660618	B2	19950706		
JP 05508766	T2	19931209	JP 1991-511197	19910521
HU 66189	A2	19941028	HU 1992-3516	19910521
HU 216302	B	19990628		
EP 651799	A1	19950510	EP 1991-911888	19910521
EP 651799	B1	19990818		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
RU 2109750	C1	19980427	RU 1992-16360	19910521
AT 183545	E	19990915	AT 1991-911888	19910521

ES 2137928	T3	20000101	ES 1991-911888	19910521
NO 9204405	A	19930113	NO 1992-4405	19921113
US 5455158	A	19951003	US 1993-58241	19930504
US 5679320	A	19971021	US 1994-259569	19940614
US 5965383	A	19991012	US 1995-409750	19950324
US 5869616	A	19990209	US 1997-826885	19970408
US 6121426	A	20000919	US 1997-909140	19970811

PRIORITY APPLN. INFO.:

US 1990-526397 A 19900521
US 1988-291951 B2 19881229
US 1989-345952 B2 19890428
CA 1989-2006929 A 19891229
US 1991-703842 B1 19910521
WO 1991-US3584 A 19910521
US 1993-58241 A1 19930504
US 1994-259569 A3 19940614
US 1995-409750 A3 19950324

TI Polypeptides containing the **fibrin-binding domain** of **fibronectin**, their recombinant production, and their use in imaging and therapy

AB Polypeptides having amino acid sequences substantially present in the **fibrin-binding domain** (FBD) of human **fibronectin** are labeled with an imageable **marker** and used in imaging a thrombus or atherosclerotic plaque. Thrombolytic agents bound to the FBD polypeptides are also claimed. Wounds are treated with fusion products of the FBD polypeptide and a polypeptide comprising the cell-binding domain of human **fibronectin**. A human **fibronectin** cDNA library was prepd. and used in cloning and making various FBD polypeptides. The polypeptides were modified with DTPA and radiolabeled with 111In and shown to bind to preformed thrombi and thrombi in vivo. They gave a high thrombus:blood ratio of 80-200 after 24 h. The bacterial binding domain of **fibronectin** was shown to be sepd. from the FBD since a 31-kDa recombinant FBD polypeptide contg. the entire FBD (residues 1-262 of **fibronectin**) bound to Staphylococcus aureus, while 18.5 kDa and 12 kDa polypeptides contg. the 1st 154 and 109 amino acid residues of **fibronectin**, resp., did not. The 18.5 and 12 kDa polypeptides had a high covalent binding specificity for **fibrin** together with a narrower spectrum of activities and lower specificity for other ligands such as vascular components and bacteria than the 31 kDa protein which is advantageous for thrombus imaging.

ST **fibrin** binding polypeptide **fibronectin** imaging; cloning **fibronectin** cDNA **fibrin** binding protein; thrombus imaging **fibrin** binding protein; atherosclerosis plaque imaging

IT Bacteria
Cell
Escherichia coli
(DNA for **fibrin**-binding polypeptide of human **fibronectin** cloning and expression in)

IT Plasmid and Episome
(DNA for **fibrin**-binding polypeptides of human **fibronectin** on, cloning and expression of)

IT Gene, animal
RL: BIOL (Biological study)
(cDNA, for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression in Escherichia coli of)

ES 2137928	T3	20000101	ES 1991-911888	19910521
NO 9204405	A	19930113	NO 1992-4405	19921113
US 5455158	A	19951003	US 1993-58241	19930504
US 5679320	A	19971021	US 1994-259569	19940614
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CA 1989-2006929	A	19891229
US 1991-703842	B1	19910521
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IT Bacteria
Cell
Escherichia coli
(DNA for **fibrin**-binding polypeptide of human **fibronectin** cloning and expression in)

IT Plasmid and Episome
(DNA for **fibrin**-binding polypeptides of human **fibronectin** on, cloning and expression of)

IT Gene, animal
RL: BIOL (Biological study)
(cDNA, for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression in Escherichia coli of)

IT Blood vessel, composition
(components of, recombinant **fibrin**-binding polypeptides of human **fibronectin** response to)
IT Thrombolytics
(conjugates with **fibrin**-binding polypeptides of human **fibronectin**)
IT **Fibrins**
RL: BIOL (Biological study)
(domain of human **fibronectin** binding to, labeled polypeptides contg., for imaging)
IT Wound healing promoters
(**fibrin**-binding polypeptides of human **fibronectin** and cell-binding polypeptides of **fibronectin** as)
IT **Fibronectins**
RL: BIOL (Biological study)
(**fibrin**-binding polypeptides of, labeled, for imaging)
IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression of)
IT Anticoagulants and Antithrombotics
(fusion proteins contg. **fibrin**-binding polypeptides of human **fibronectin** as)
IT Thrombus and Blood clot
(imaging of, with labeled **fibrin**-binding polypeptides of human **fibronectin**)
IT Imaging
(labeled **fibrin**-binding polypeptides of **fibronectin** for)
IT Molecular cloning
(of DNA for **fibrin**-binding polypeptides of human **fibronectin** on)
IT Plasmid and Episome
(pFN194-2, DNA for fusion protein contg. **fibrin**-binding and cell-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN195-4, DNA for fusion protein contg. **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN196-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN197-10, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN202-5, DNA for fusion protein contg. **fibrin**-binding and cell-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN203-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN205-5, DNA for fusion protein contg. **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome

IT Blood vessel, composition
(components of, recombinant **fibrin**-binding polypeptides of human **fibronectin** response to)
IT Thrombolytics
(conjugates with **fibrin**-binding polypeptides of human **fibronectin**)
IT **Fibrins**
RL: BIOL (Biological study)
(domain of human **fibronectin** binding to, labeled polypeptides contg., for imaging)
IT Wound healing promoters
(**fibrin**-binding polypeptides of human **fibronectin** and cell-binding polypeptides of **fibronectin** as)
IT **Fibronectins**
RL: BIOL (Biological study)
(**fibrin**-binding polypeptides of, labeled, for imaging)
IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression of)
IT Anticoagulants and Antithrombotics
(fusion proteins contg. **fibrin**-binding polypeptides of human **fibronectin** as)
IT Thrombus and Blood clot
(imaging of, with labeled **fibrin**-binding polypeptides of human **fibronectin**)
IT Imaging
(labeled **fibrin**-binding polypeptides of **fibronectin** for)
IT Molecular cloning
(of DNA for **fibrin**-binding polypeptides of human **fibronectin** on)
IT Plasmid and Episome
(pFN194-2, DNA for fusion protein contg. **fibrin**-binding and cell-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN195-4, DNA for fusion protein contg. **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN196-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN197-10, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN202-5, DNA for fusion protein contg. **fibrin**-binding and cell-binding polypeptides of human **fibronectin** on, cloning and expression of)
IT Plasmid and Episome
(pFN203-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN205-5, DNA for fusion protein contg. **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome

(pFN208-13, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)

IT Plasmid and Episome
(pFN962-3, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)

IT Extracellular matrix
Staphylococcus aureus
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding response to)

IT Burn
Eye, disease
(wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Endothelium
(Staphylococcus aureus binding to cells of, recombinant **fibrin**-binding polypeptides of human **fibronectin** effect on)

IT Imaging
(NMR, agents, paramagnetic ion conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)

IT Arteriosclerosis
(atherosclerosis, plaque, imaging of, with labeled **fibrin**-binding polypeptides of human **fibronectin**)

IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(complementary, for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression in Escherichia coli of)

IT **Fibrins**
RL: PROC (Process)
(complexes, with recombinant **fibrin**-binding polypeptides of human **fibronectin**, characterization of)

IT Radioelements, compounds
RL: BIOL (Biological study)
(conjugates, with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)

IT Scintigraphy
(contrast agents, radioactive **isotope** conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)

IT Radiography
(contrast agents, x-ray-opaque element conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)

IT Eye
(cornea, epithelium, wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Eye
(cornea, stroma, wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Tendon
(disease, injury, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Proteins, specific or class
RL: BIOL (Biological study)
(**fibrin**-binding, labeled, of human **fibronectin**, for imaging agents)

IT Proteins, specific or class
RL: BIOL (Biological study)
(fusion products, of cell-binding domain and **fibrin**-**binding domain** polypeptides of human **fibronectin**)

(pFN208-13, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)

IT Plasmid and Episome
(pFN962-3, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)

IT Extracellular matrix
Staphylococcus aureus
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding response to)

IT Burn
Eye, disease
(wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Endothelium
(Staphylococcus aureus binding to cells of, recombinant **fibrin**-binding polypeptides of human **fibronectin** effect on)

IT Imaging
(NMR, agents, paramagnetic ion conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)

IT Arteriosclerosis
(atherosclerosis, plaque, imaging of, with labeled **fibrin**-binding polypeptides of human **fibronectin**)

IT Deoxyribonucleic acids
RL: BIOL (Biological study)
(complementary, for **fibrin**-binding polypeptides of human **fibronectin**, cloning and expression in Escherichia coli of)

IT **Fibrins**
RL: PROC (Process)
(complexes, with recombinant **fibrin**-binding polypeptides of human **fibronectin**, characterization of)

IT Radioelements, compounds
RL: BIOL (Biological study)
(conjugates, with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)

IT Scintigraphy
(contrast agents, radioactive **isotope** conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)

IT Radiography
(contrast agents, x-ray-opaque element conjugates with **fibrin**-binding polypeptides of human **fibronectin** as)

IT Eye
(cornea, epithelium, wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Eye
(cornea, stroma, wound, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Tendon
(disease, injury, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)

IT Proteins, specific or class
RL: BIOL (Biological study)
(**fibrin**-binding, labeled, of human **fibronectin**, for imaging agents)

IT Proteins, specific or class
RL: BIOL (Biological study)
(fusion products, of cell-binding domain and **fibrin**-**binding domain** polypeptides of human **fibronectin**)

IT Plasmid and Episome
(pFN949-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN975-25, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Magnetic substances
(para-, conjugates with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT Skin
(transplant, wound in, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Opaque materials
(x-ray, conjugates with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT 67-43-6D, DTPA, reaction products with recombinant **fibrin**-binding polypeptides of human **fibronectin**, indium-111-labeled 142298-13-3D, DTPA reaction products, indium-111-labeled 142298-17-7D, DTPA reaction products, indium-111-labeled, recombinant deriv. 142298-19-9D, DTPA reaction products, indium-111-labeled 142298-20-2D, DTPA reaction products, indium-111-labeled
RL: BIOL (Biological study)
(atherosclerotic lesions and thrombi imaging with)
IT 142298-11-1
RL: BIOL (Biological study)
(cloning of cDNA for, in recombinant **fibrin**-binding polypeptides prepn. for imaging agents)
IT 142244-17-5 142244-18-6
RL: PROC (Process)
(cloning of, in recombinant **fibrin**-binding polypeptides prepn. for imaging agents)
IT 10043-66-0D, Iodine-131, **fibrin**-binding polypeptide conjugates 14119-09-6D, Gallium-67, **fibrin**-binding polypeptide conjugates 14158-31-7D, Iodine-125, **fibrin**-binding polypeptide conjugates 14932-42-4D, Xenon-133, **fibrin**-binding polypeptide conjugates 15715-08-9D, Iodine-123, **fibrin**-binding polypeptide conjugates 15750-15-9D, Indium-111, **fibrin**-binding polypeptide conjugates 141517-93-3D, fusion product with **fibrin**-binding polypeptides of human **fibronectin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(for imaging)
IT 142298-12-2, 1-109-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced) 142298-16-6, 1-153-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced) 142298-17-7 142298-18-8, 1-154-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced)
RL: BIOL (Biological study)
(for imaging agent)
IT 14133-76-7D, Technetium-99, **fibrin**-binding polypeptide conjugates 15678-91-8D, **fibrin**-binding polypeptide conjugates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(for imaging, metastable)
IT 141497-06-5 141497-07-6
RL: PRP (Properties)
(imageable **marker**-labeled **fibrin**-binding polypeptides of **fibronectin** contg. amino-terminal sequence of, for imaging agents)
IT 68181-17-9DP, N-Succinimidyl-3-(2-pyridyldithio)propionate, reaction

IT Plasmid and Episome
(pFN949-2, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Plasmid and Episome
(pFN975-25, DNA for **fibrin**-binding polypeptide of human **fibronectin** on, cloning and expression in Escherichia coli of)
IT Magnetic substances
(para-, conjugates with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT Skin
(transplant, wound in, treatment of, with **fibrin**-binding and cell-binding polypeptides of human **fibronectin**)
IT Opaque materials
(x-ray, conjugates with **fibrin**-binding polypeptides of human **fibronectin**, for imaging)
IT 67-43-6D, DTPA, reaction products with recombinant **fibrin**-binding polypeptides of human **fibronectin**, indium-111-labeled 142298-13-3D, DTPA reaction products, indium-111-labeled 142298-17-7D, DTPA reaction products, indium-111-labeled, recombinant deriv. 142298-19-9D, DTPA reaction products, indium-111-labeled 142298-20-2D, DTPA reaction products, indium-111-labeled
RL: BIOL (Biological study)
(atherosclerotic lesions and thrombi imaging with)
IT 142298-11-1
RL: BIOL (Biological study)
(cloning of cDNA for, in recombinant **fibrin**-binding polypeptides prepn. for imaging agents)
IT 142244-17-5 142244-18-6
RL: PROC (Process)
(cloning of, in recombinant **fibrin**-binding polypeptides prepn. for imaging agents)
IT 10043-66-0D, Iodine-131, **fibrin**-binding polypeptide conjugates 14119-09-6D, Gallium-67, **fibrin**-binding polypeptide conjugates 14158-31-7D, Iodine-125, **fibrin**-binding polypeptide conjugates 14932-42-4D, Xenon-133, **fibrin**-binding polypeptide conjugates 15715-08-9D, Iodine-123, **fibrin**-binding polypeptide conjugates 15750-15-9D, Indium-111, **fibrin**-binding polypeptide conjugates 141517-93-3D, fusion product with **fibrin**-binding polypeptides of human **fibronectin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(for imaging)
IT 142298-12-2, 1-109-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced) 142298-16-6, 1-153-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced) 142298-17-7 142298-18-8, 1-154-**Fibronectin** (human clone pFH16/pFH134 protein moiety reduced)
RL: BIOL (Biological study)
(for imaging agent)
IT 14133-76-7D, Technetium-99, **fibrin**-binding polypeptide conjugates 15678-91-8D, **fibrin**-binding polypeptide conjugates, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(for imaging, metastable)
IT 141497-06-5 141497-07-6
RL: PRP (Properties)
(imageable **marker**-labeled **fibrin**-binding polypeptides of **fibronectin** contg. amino-terminal sequence of, for imaging agents)
IT 68181-17-9DP, N-Succinimidyl-3-(2-pyridyldithio)propionate, reaction

products with recombinant **fibrin**-binding polypeptides of human **fibronectin** and thiolated streptokinase
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of and biol. activity of)
IT 80146-85-6, Transglutaminase
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding to **fibrin** clot in response to)
IT 9005-49-6, Heparin, biological studies
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding to **fibrin** clots response to)
IT 9005-49-6D, Heparin, Sepharose conjugates 9012-36-6D, Sepharose, heparin
conjugates
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** purifn. with)
IT 9001-92-7D, Protease, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 9002-01-1D, Streptokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 9039-53-6D, Urokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 81669-57-0D, Anistreplase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 82657-92-9D, Prourokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 139639-23-9D, conjugates with **fibrin**-binding polypeptides of human **fibronectin**
RL: BIOL (Biological study)
(thrombus treatment with)

L9 ANSWER 7 OF 9 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 3
ACCESSION NUMBER: 1992:44399 BIOSIS
DOCUMENT NUMBER: BA93:24374
TITLE: DIFFERENTIAL BEHAVIOR OF THE TWO FREE SULFHYDRYL GROUPS OF HUMAN PLASMA **FIBRONECTIN** EFFECTS OF ENVIRONMENTAL FACTORS.
AUTHOR(S): NARASIMHAN C; LAI C S
CORPORATE SOURCE: BIOPHYSICS SECTION, DEP. RADIOLOGY, MED. COLL. WIS., 8701 WATERTOWN PLANK ROAD, MILWAUKEE, WIS. 53226.
SOURCE: BIOPOLYMERS, (1991) 31 (10), 1159-1170.
CODEN: BIPMAA. ISSN: 0006-3525.
FILE SEGMENT: BA; OLD
LANGUAGE: English
TI DIFFERENTIAL BEHAVIOR OF THE TWO FREE SULFHYDRYL GROUPS OF HUMAN PLASMA **FIBRONECTIN** EFFECTS OF ENVIRONMENTAL FACTORS.
AB We report here a novel approach to **label** specifically one of the two cryptic, free sulfhydryl groups per subunit of human plasma **fibronectin** with either an 15N,2H-maleimide spin **label** or a coumarinylphenyl maleimide fluorescent **label**. This permits the use of electron spin resonance (ESR) or fluorescence techniques to study molecular dynamics of **fibronectin** with the **label** attached to a single site per chain on the protein molecule. The method is
based on our observation that upon adsorption of **fibronectin** to a gelatin-coated surface, the SH1 site, located between the DNA-binding and the cell-binding domains, is partially exposed, while the SH2 site, located within the carboxyl-terminal **fibrin-binding**

products with recombinant **fibrin**-binding polypeptides of human **fibronectin** and thiolated streptokinase
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of and biol. activity of)
IT 80146-85-6, Transglutaminase
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding to **fibrin** clot in response to)
IT 9005-49-6, Heparin, biological studies
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** binding to **fibrin** clots response to)
IT 9005-49-6D, Heparin, Sepharose conjugates 9012-36-6D, Sepharose, heparin
conjugates
RL: BIOL (Biological study)
(recombinant **fibrin**-binding polypeptides of human **fibronectin** purifn. with)
IT 9001-92-7D, Protease, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 9002-01-1D, Streptokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 9039-53-6D, Urokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 81669-57-0D, Anistreplase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 82657-92-9D, Prourokinase, conjugates with **fibrin**-binding polypeptides of human **fibronectin** 139639-23-9D, conjugates with **fibrin**-binding polypeptides of human **fibronectin**
RL: BIOL (Biological study)
(thrombus treatment with)

L9 ANSWER 7 OF 9 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 3
ACCESSION NUMBER: 1992:44399 BIOSIS
DOCUMENT NUMBER: BA93:24374
TITLE: DIFFERENTIAL BEHAVIOR OF THE TWO FREE SULFHYDRYL GROUPS OF HUMAN PLASMA **FIBRONECTIN** EFFECTS OF ENVIRONMENTAL FACTORS.
AUTHOR(S): NARASIMHAN C; LAI C S
CORPORATE SOURCE: BIOPHYSICS SECTION, DEP. RADIOLOGY, MED. COLL. WIS., 8701 WATERTOWN PLANK ROAD, MILWAUKEE, WIS. 53226.
SOURCE: BIOPOLYMERS, (1991) 31 (10), 1159-1170.
CODEN: BIPMAA. ISSN: 0006-3525.
FILE SEGMENT: BA; OLD
LANGUAGE: English
TI DIFFERENTIAL BEHAVIOR OF THE TWO FREE SULFHYDRYL GROUPS OF HUMAN PLASMA **FIBRONECTIN** EFFECTS OF ENVIRONMENTAL FACTORS.
AB We report here a novel approach to **label** specifically one of the two cryptic, free sulfhydryl groups per subunit of human plasma **fibronectin** with either an 15N,2H-maleimide spin **label** or a coumarinylphenyl maleimide fluorescent **label**. This permits the use of electron spin resonance (ESR) or fluorescence techniques to study molecular dynamics of **fibronectin** with the **label** attached to a single site per chain on the protein molecule. The method is
based on our observation that upon adsorption of **fibronectin** to a gelatin-coated surface, the SH1 site, located between the DNA-binding and the cell-binding domains, is partially exposed, while the SH2 site, located within the carboxyl-terminal **fibrin-binding**

domain, remains buried and unreactive. The procedures for the preparation of the selectively labeled **fibronectins** are described in detail. The physicochemical properties of these single-site labeled **fibronectins**, particularly as affected by high salt, heparin, surface binding, and temperature, were characterized by ESR spin-**label** and steady-state fluorescence techniques. The steady-state fluorescence measurement indicates that both local environments of SH1 and SH2 sites are relatively. . . increase in the domainal flexibility in both SH1 and SH2 regions, perhaps through the disruption of domain-domain interactions in the **fibronectin** molecule, and that the former is more effective than the latter in producing such an effect. The observed heparin effect. . . processes. The data presented here suggest that the newly developed method for differential labeling of the free sulfhydryl groups in **fibronectin** should be useful for mapping the spatial arrangement of structural domains in the protein molecule using spin-**label**-spin-probe and fluorescene energy transfer techniques.

L9 ANSWER 8 OF 9 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 4
ACCESSION NUMBER: 1989:444158 BIOSIS
DOCUMENT NUMBER: BA88:92430
TITLE: EVIDENCE THAT THE TWO FREE SULFHYDRYL GROUPS OF PLASMA **FIBRONECTIN** ARE IN DIFFERENT LOCAL ENVIRONMENTS SATURATION-RECOVERY ESR STUDY.
AUTHOR(S): LAI C-S; NARASIMHAN C; YIN J-J
CORPORATE SOURCE: NATL. BIOMED. ESR CENT., DEP. RADIOL., MED. COLL. WISCONSIN, 8701 WATERTOWN PLANK RD, MILWAUKEE, WIS. 523226.
SOURCE: BIOPHYS J, (1989) 56 (2), 396-400.
CODEN: BIOJAU. ISSN: 0006-3495.
FILE SEGMENT: BA; OLD
LANGUAGE: English
TI EVIDENCE THAT THE TWO FREE SULFHYDRYL GROUPS OF PLASMA **FIBRONECTIN** ARE IN DIFFERENT LOCAL ENVIRONMENTS SATURATION-RECOVERY ESR STUDY.
AB Human plasma **fibronectin** is a dimer consisting of two subunits; each contains two cryptic thiol groups that were selectively labeled with an 15N,2H-maleimide spin **label**. Previous studies using conventional X-band electron spin resonance (ESR) methods showed that the spectrum of the labeled protein displays a. . . which was deconvoluted into two T1 values of 1.37 and 4.53 .mu.s. Thus, the two spin-labeled sulfhydryl sites of plasma **fibronectin** (Fn), being similar in rates of rotational diffusion, differ by a factor of 3.2 in T1. Parallel experiments using various **fibronectin** fragments showed that the 1.37-.mu.s component is associated with the **label** attached onto the thiol located in between the DNA-binding and the cell-binding domains, and the 4.53-.mu.s component is associated with the **label** attached onto the thiol located within the carboxyl-terminal **fibrin-binding domain**. The data suggest that the saturation-recovery ESR is a useful method for differentiating multiple spin-labeled sites on macromolecules in which the **labels** undergo similar rates of rotational motion.

L9 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:511284 CAPLUS
DOCUMENT NUMBER: 111:111284
TITLE: Evidence that the two free sulfhydryl groups of plasma

domain, remains buried and unreactive. The procedures for the preparation of the selectively labeled **fibronectins** are described in detail. The physicochemical properties of these single-site labeled **fibronectins**, particularly as affected by high salt, heparin, surface binding, and temperature, were characterized by ESR spin-**label** and steady-state fluorescence techniques. The steady-state fluorescence measurement indicates that both local environments of SH1 and SH2 sites are relatively. . . increase in the domainal flexibility in both SH1 and SH2 regions, perhaps through the disruption of domain-domain interactions in the **fibronectin** molecule, and that the former is more effective than the latter in producing such an effect. The observed heparin effect. . . processes. The data presented here suggest that the newly developed method for differential labeling of the free sulfhydryl groups in **fibronectin** should be useful for mapping the spatial arrangement of structural domains in the protein molecule using spin-**label**-spin-probe and fluorescene energy transfer techniques.

L9 ANSWER 8 OF 9 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 4
ACCESSION NUMBER: 1989:444158 BIOSIS
DOCUMENT NUMBER: BA88:92430
TITLE: EVIDENCE THAT THE TWO FREE SULFHYDRYL GROUPS OF PLASMA **FIBRONECTIN** ARE IN DIFFERENT LOCAL ENVIRONMENTS SATURATION-RECOVERY ESR STUDY.
AUTHOR(S): LAI C-S; NARASIMHAN C; YIN J-J
CORPORATE SOURCE: NATL. BIOMED. ESR CENT., DEP. RADIOL., MED. COLL. WISCONSIN, 8701 WATERTOWN PLANK RD, MILWAUKEE, WIS. 523226.
SOURCE: BIOPHYS J, (1989) 56 (2), 396-400.
CODEN: BIOJAU. ISSN: 0006-3495.
FILE SEGMENT: BA; OLD
LANGUAGE: English
TI EVIDENCE THAT THE TWO FREE SULFHYDRYL GROUPS OF PLASMA **FIBRONECTIN** ARE IN DIFFERENT LOCAL ENVIRONMENTS SATURATION-RECOVERY ESR STUDY.
AB Human plasma **fibronectin** is a dimer consisting of two subunits; each contains two cryptic thiol groups that were selectively labeled with an 15N,2H-maleimide spin **label**. Previous studies using conventional X-band electron spin resonance (ESR) methods showed that the spectrum of the labeled protein displays a. . . which was deconvoluted into two T1 values of 1.37 and 4.53 .mu.s. Thus, the two spin-labeled sulfhydryl sites of plasma **fibronectin** (Fn), being similar in rates of rotational diffusion, differ by a factor of 3.2 in T1. Parallel experiments using various **fibronectin** fragments showed that the 1.37-.mu.s component is associated with the **label** attached onto the thiol located in between the DNA-binding and the cell-binding domains, and the 4.53-.mu.s component is associated with the **label** attached onto the thiol located within the carboxyl-terminal **fibrin-binding domain**. The data suggest that the saturation-recovery ESR is a useful method for differentiating multiple spin-labeled sites on macromolecules in which the **labels** undergo similar rates of rotational motion.

L9 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:511284 CAPLUS
DOCUMENT NUMBER: 111:111284
TITLE: Evidence that the two free sulfhydryl groups of plasma

fibronectin are in different local environments. Saturation-recovery electron spin resonance study

AUTHOR(S): Lai, Ching San; Narasimhan, C.; Yin, Jun Jie

CORPORATE SOURCE: Natl. Biomed. Electron Spin Reson. Cent., Med. Coll. Wisconsin, Milwaukee, WI, 53226, USA

SOURCE: Biophys. J. (1989), 56(2), 395-400
CODEN: BIOJAU; ISSN: 0006-3495

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Evidence that the two free sulfhydryl groups of plasma **fibronectin** are in different local environments. Saturation-recovery electron spin resonance study

AB Human plasma **fibronectin** is a dimer consisting of 2 subunits; each contains 2 cryptic SH groups that were selectively labeled with an 15N,2H-maleimide spin **label**. Satn.-recovery ESR was used to measure directly electron spin-lattice relaxation time (T1) of the labeled protein in soln. at 27.degree.. Interestingly, the time evolution of the signal was biphasic, which was deconvoluted into 2 T1 values of 1.37 and 4.53 .mu.s. Thus, the 2 spin-labeled SH sites of plasma **fibronectin** being similar in rates of rotational diffusion, differ by a factor of 3.2 in T1. Parallel expts. using various **fibronectin** fragments showed that the 1.37-.mu.s component is assocd. with the **label** attached onto the SH located between the DNA-binding and the cell-binding domains, and the 4.53-.mu.s component is assocd. with the **label** attached onto the SH located within the C-terminal **fibrin-binding domain**. The satn.-recovery ESR is a useful method for differentiating multiple spin-labeled sites on macromols. in which the **labels** undergo similar rates of rotational motion.

ST **fibronectin** sulfhydryl ESR

IT Blood plasma
(**fibronectins** of, multiple sulfhydryl groups of, ESR study of)

IT Macromolecular compounds
RL: BIOL (Biological study)
(multiple spin **label** studies of, satn.-recovery ESR for)

IT Mercapto group
(of **fibronectin**, of human blood plasma, multiple sites of, ESR study of)

IT Electron spin resonance spectrometry
(of macromols. contg. multiple spin **labels**, rotational motion in relation to)

IT **Fibronectins**
RL: PRP (Properties)
(sulfhydryl groups of, of human blood plasma, multiple sites of, ESR study of)

=> dis his

(FILE 'HOME' ENTERED AT 16:23:05 ON 02 NOV 2001)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, SCISEARCH' ENTERED AT 16:24:37 ON 02 NOV 2001

L1 100222 S FIBRONECTIN

L2 198 S FIBRIN (W) BINDING (W) DOMAIN

fibronectin are in different local environments. Saturation-recovery electron spin resonance study

AUTHOR(S): Lai, Ching San; Narasimhan, C.; Yin, Jun Jie

CORPORATE SOURCE: Natl. Biomed. Electron Spin Reson. Cent., Med. Coll. Wisconsin, Milwaukee, WI, 53226, USA

SOURCE: Biophys. J. (1989), 56(2), 395-400
CODEN: BIOJAU; ISSN: 0006-3495

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Evidence that the two free sulfhydryl groups of plasma **fibronectin** are in different local environments. Saturation-recovery electron spin resonance study

AB Human plasma **fibronectin** is a dimer consisting of 2 subunits; each contains 2 cryptic SH groups that were selectively labeled with an 15N,2H-maleimide spin **label**. Satn.-recovery ESR was used to measure directly electron spin-lattice relaxation time (T1) of the labeled protein in soln. at 27.degree.. Interestingly, the time evolution of the signal was biphasic, which was deconvoluted into 2 T1 values of 1.37 and 4.53 .mu.s. Thus, the 2 spin-labeled SH sites of plasma **fibronectin** being similar in rates of rotational diffusion, differ by a factor of 3.2 in T1. Parallel expts. using various **fibronectin** fragments showed that the 1.37-.mu.s component is assocd. with the **label** attached onto the SH located between the DNA-binding and the cell-binding domains, and the 4.53-.mu.s component is assocd. with the **label** attached onto the SH located within the C-terminal **fibrin-binding domain**. The satn.-recovery ESR is a useful method for differentiating multiple spin-labeled sites on macromols. in which the **labels** undergo similar rates of rotational motion.

ST **fibronectin** sulfhydryl ESR

IT Blood plasma
(**fibronectins** of, multiple sulfhydryl groups of, ESR study of)

IT Macromolecular compounds
RL: BIOL (Biological study)
(multiple spin **label** studies of, satn.-recovery ESR for)

IT Mercapto group
(of **fibronectin**, of human blood plasma, multiple sites of, ESR study of)

IT Electron spin resonance spectrometry
(of macromols. contg. multiple spin **labels**, rotational motion in relation to)

IT **Fibronectins**
RL: PRP (Properties)
(sulfhydryl groups of, of human blood plasma, multiple sites of, ESR study of)

=> dis his

(FILE 'HOME' ENTERED AT 16:23:05 ON 02 NOV 2001)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, SCISEARCH' ENTERED AT 16:24:37 ON 02 NOV 2001

L1 100222 S FIBRONECTIN

L2 198 S FIBRIN (W) BINDING (W) DOMAIN

```
L3          135 S L1 AND L2
L4         6568 S L1 AND (MARKER OR IMAGE OR ISOTOPE OR LABEL)
L5          149 S L4 AND FIBRIN
L6           15 S L5 AND ((THROMBUS OR ATHEROSCLEROTIC (W) PLAQUE))
L7           17 S L5 AND ((FIBRIN (W) BINDING (W) DOMAIN))
L8           11 DUP REM L6 (4 DUPLICATES REMOVED)
L9            9 DUP REM L7 (8 DUPLICATES REMOVED)

=> log off y
STN INTERNATIONAL LOGOFF AT 16:49:18 ON 02 NOV 2001
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```
L3          135 S L1 AND L2
L4         6568 S L1 AND (MARKER OR IMAGE OR ISOTOPE OR LABEL)
L5          149 S L4 AND FIBRIN
L6           15 S L5 AND ((THROMBUS OR ATHEROSCLEROTIC (W) PLAQUE))
L7           17 S L5 AND ((FIBRIN (W) BINDING (W) DOMAIN))
L8           11 DUP REM L6 (4 DUPLICATES REMOVED)
L9            9 DUP REM L7 (8 DUPLICATES REMOVED)

=> log off y
STN INTERNATIONAL LOGOFF AT 16:49:18 ON 02 NOV 2001
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